

WE CLAIM:

1. An hydrophobic GRF analog of formula A:

$X - \text{GRF-peptide} \quad (\text{A})$

wherein;

the GRF peptide is a peptide of formula B;

A1-A2-Asp-Ala-Ile-Phe-Thr-A8-Ser-Tyr-Arg-Lys-A13-Leu-A15-  
Gln-Leu-A18-Ala-Arg-Lys-Leu-Leu-A24-A25-Ile-A27-A28-Arg-  
A30-R0  $(\text{B})$

wherein,

A1 is Tyr or His;

A2 is Val or Ala;

A8 is Asn or Ser;

A13 is Val or Ile;

A15 is Ala or Gly;

A18 is Ser or Tyr;

A24 is Gln or His;

A25 is Asp or Glu;

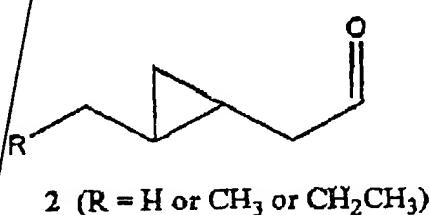
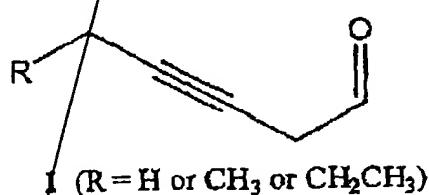
A27 is Met, Ile or Nle;

A28 is Ser or Asn;

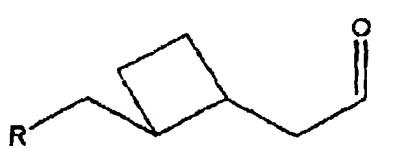
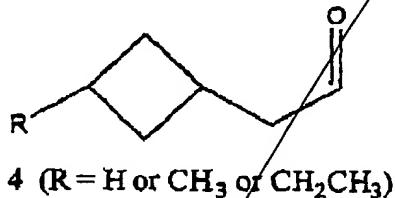
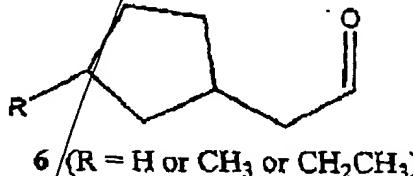
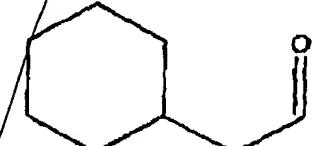
A30 is a bond or any amino acid sequence of 1 up to 15 residues;

R0 is  $\text{NH}_2$  or  $\text{NH}-(\text{CH}_2)_n-\text{CONH}_2$ , with  $n=1$  to 12 and;

X is selected from the group consisting of:

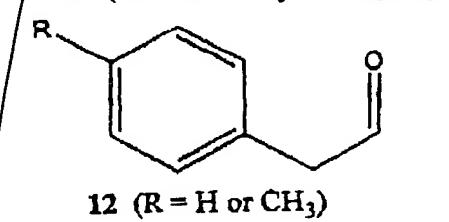
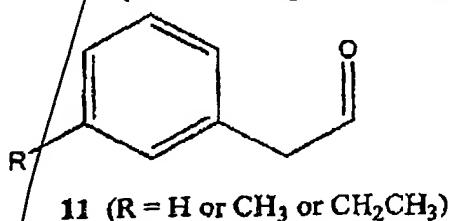
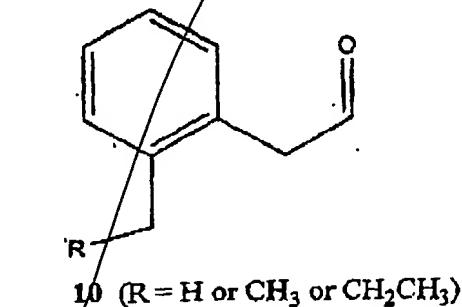
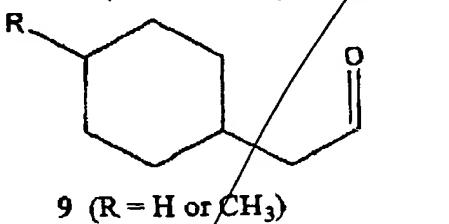
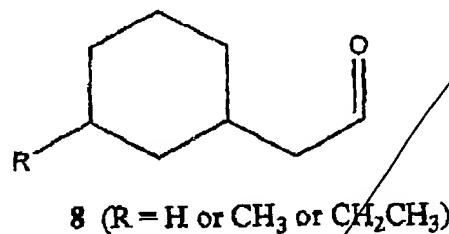


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3 (R = H or CH<sub>3</sub> or CH<sub>2</sub>CH<sub>3</sub>)4 (R = H or CH<sub>3</sub> or CH<sub>2</sub>CH<sub>3</sub>)5 (R = H or CH<sub>3</sub> or CH<sub>2</sub>CH<sub>3</sub>)6 (R = H or CH<sub>3</sub> or CH<sub>2</sub>CH<sub>3</sub>)7 (R = H or CH<sub>3</sub> or CH<sub>2</sub>CH<sub>3</sub>)

*Sub A'*  
cont

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Sub A  
cont

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2. A pharmaceutical formulation for inducing growth hormone release which comprises as an active ingredient a GRF analog as claimed in claim 1, in association with a pharmaceutically acceptable carrier, excipient or diluent.

3. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for increasing the level of growth hormone in a patient which comprises administering to said patient an effective amount of said GRF analog.

4. A method for the diagnosis of growth hormone deficiencies in patients, which comprises administering to said patient a GRF analog as claimed in claim 1 and measuring the growth hormone response.

5. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for the treatment of pituitary dwarfism or growth retardation in a patient, which comprises administering to said patient an effective amount of said GRF analog.

6. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for the treatment of wound or bone healing in a patient, which comprises administering to said patient an effective amount of said GRF analog.

7. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for the treatment of osteoporosis in a patient, which comprises administering to said patient an effective amount of said GRF analog.

8. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for improving protein anabolism in human or animal, which comprises administering to said human or animal an effective amount of said GRF analog.

9. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for inducing a lipolytic effect in human or animal inflicted with clinical obesity, which comprises administering to said human or animal an effective amount of said GRF analog.

10. Use of GRF analog as claimed in claim 1 for the manufacture of a medicament for the overall upgrading of somatrop function in human or animal, which comprises administering to said human or animal an effective amount of said GRF analog.

Part A  
cont